# INSECTS OF MICRONESIA

## Diptera: Tabanidae

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### INTRODUCTION

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### SYSTEMATICS

The Tabanidae are poorly represented in Micronesia; there are only two species, one restricted to the Palau Islands and the other a widespread oriental species found on Guam.

#### Genus **Tabanus** Linnaeus

*Tabanus* Linnaeus, 1758, Syst. Nat., ed. 10, **1**:601.

Genotype: *Tabanus bovinus* Linnaeus.

It does not seem necessary to give the extensive synonymy for this large, worldwide genus of somewhat uncertain limits. The two Micronesian species fall into a rather restricted interpretation of the genus, i.e., the basal plate of antennal segment 3 has a distinct dorsal angle, the frontal callus of the female is well developed with a slender dorsal extension, there is no tubercle at the vertex, the eyes are bare, the basicosta has dark hairs as on the costa, cell $R_5$ of the wing is wide open, and the hind tibia has no apical spurs.

1. **Tabanus palauensis** Takahashi.

*Tabanus palauensis* Takahashi, 1944, Nat. Hist. Soc. Formosa, Trans. **34**:95.

Dusty-brown species with narrow, pale, apical bands on abdominal segments. Length 13 to 17 mm. Antennal segments 1 and 2 reddish brown, 3 black; basal plate of segment

3 slender, longer than annulate portion with distinct, but low, dorsal angle. Subcallus pale brown, face and cheeks gray with pale hair. Frons of female reddish brown below, grayer above, 5 to 7 times as high as basal width, little widened above. Frontal callus yellow brown, slightly higher than wide, tapering more or less abruptly to a slender, usually darker, median callus reaching to upper one-fourth of frons. Palpus yellowish brown with variable mixture of dark and pale hair, slightly swollen basally, tapering to slender apex. Scutum grayish brown with pair of narrow paler stripes. Pleuron yellowish gray with white hair. Wings hyaline with brown veins, costa and occasionally margins of veins faintly tinged with yellow. Short stump vein sometimes present at base of $R_4$. Knob of halter yellow brown. Legs generally reddish brown, coxae grayer. Abdomen brown with mostly dark hair, hind margins of segments narrowly pale yellowish with pale hair. Abdomen distinctly tapering distally. Eye of male with large facets occupying upper two-thirds except for narrow posterior margin; large facets yellow, small facets black.

DISTRIBUTION: Caroline Is. (Palau).

PALAU. BABELTHUAP: Apr., May, 1953, Beardsley; May 1957, Sabrosky; July 1946, Oakley; Aug. 1951, Gressitt; Dec. 1947, Dybas. KOROR: Apr., May 1957, Sabrosky; May 1953, Beardsley; July 1946, Oakley. ULEBSEHEL: Apr. 1957, Sabrosky; May 1953, Beardsley. NGURUKDABEL: Apr. 1957, Sabrosky. NGERGOI: Aug. 1945, Dybas, Ducoff. PELELIU: Jan., Feb. 1948, July, Aug. 1945, all Dybas; Dec. 1944, Critchett. ANGAUR: Feb. 1948, Dybas; Apr. 1936, Kondo; Apr. 1957, Sabrosky.

## 2. **Tabanus striatus** Fabricius.

*Tabanus striatus* Fabricius, 1787, Mant. Ins. **2**: 356.

Grayish-brown species with hyaline wings and trivittate abdomen. Length 13 to 15 mm. Antenna reddish brown, segments 1 and 2 with gray pollinosity and black hair, annulate portion of segment 3 usually darkened in female. Basal plate of segment 3 about 1.5 to 2.0 times as long as greatest width, dorsal angle low; annulate portion subequal to or slightly longer than basal portion. Subcallus gray, faintly tinged with yellowish; face and cheeks pale gray with white hair. Frons of female brown, paler between basal and median calli, about 6.3 times as high as basal width, slightly widened dorsally. Frontal callus red brown, nearly twice as high as wide, touching eyes except near top where it tapers to narrow, lanceolate, median callus, reaching to upper one-third of frons; often darkened, subshining area at vertex. Palpus nearly white, mixed black and pale with four paler stripes; prealar callus reddish. Scutellum dark discally, paler around margin. Pleuron gray with white hair. Wings hyaline with brown veins. No stump vein at base of vein $R_4$. Knob of halter brownish laterally, yellow apically. Legs reddish brown, coxae gray, fore femur dark anteriorly, tarsi and apex of fore tibia darkened. Abdomen dark blackish brown dorsally, with three stripes and narrow lateral margin pale yellowish gray. Median stripe widest on terga 3 to 5, narrowed anteriorly and posteriorly, ending at apex of segment 6. Lateral stripes consisting of contiguous, somewhat oblique spots, usually on all segments from 1 to 6. Venter with middle one-third more or less dark brownish, lateral thirds pale reddish yellow. Eye of male with about three-fourths of area with large facets, small facets occupying lower one-fourth and narrow margin at sides and above. In dried specimens, small facets black, area of large facets usually pale, with transverse brown band not reaching sides. (No males in collection from Guam.)

DISTRIBUTION: India, Burma, Thailand, Malaya, Indonesia, Philippine Is., Hainan, China, S. Mariana Is. (Guam).

S. MARIANA IS. GUAM: Jan. 1948, Langford; May 1954, Beardsley;

Apr. 1936, Kondo; Apr. 1957, Sabrosky.

May 1956, Clagg; Agana, Nov. 1952, collector unknown; Togcha Pt., Jan., Feb. 1954, collector unknown.

The published synonymy of this species is long and involved and includes more than one species. Until types can be studied we cannot be certain which names are applicable to *striatus*. Since the name is not threatened by any earlier name and many of the later names are uncertain, no synonymy is given here.

This species closely resembles *Tabanus triceps* Thunberg of India, Ceylon, Burma, and the Philippine Islands, but *triceps* is usually slightly larger and browner, the fore femur is entirely brown, and the venter of the abdomen lacks the darkened median stripe that is usually found in *striatus*.